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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------|-----------------------------|----------------------|---------------------|------------------|
| 10/569,781 | 02/24/2006 | Thomas Matschullat | 2003P11654WOUS | 6080 |
| 22116 SIEMENS COI | 7590 06/11/200 RPORATION | EXAM | EXAMINER | |
| | AL PROPERTY DEPA | LIN, KUANG Y | | |
| 170 WOOD AVENUE SOUTH ISELIN, NJ 08830 | | | ART UNIT | PAPER NUMBER |
| , | | | 1725 | |
| | | | | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 06/11/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | Application No. | Applicant(s) | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--|--|--|
| | | 10/569,781 | MATSCHULLAT ET AL. | | | |
| | Office Action Summary | Examiner | Art Unit | | | |
| | | Kuang Y. Lin | 1725 | | | |
| Period fo | The MAILING DATE of this communication app or Reply | ears on the cover sheet with the c | orrespondence address | | | |
| WHIC - External after - If NO - Failu Any | ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. period for reply is specified above, the maximum statutory period we re to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | N. nely filed the mailing date of this communication. D (35 U.S.C. § 133). | | | |
| Status | | · | | | | |
| 1)[🖂 | Responsive to communication(s) filed on 30 M | ay 2007. | | | | |
| 2a)⊠ | This action is FINAL . 2b) ☐ This action is non-final. | | | | | |
| 3)□ | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Dispositi | ion of Claims | • | | | | |
| 4)⊠ | Claim(s) 39-44 is/are pending in the application | 1. | | | | |
| • | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | |
| 5) | 5) Claim(s) is/are allowed. | | | | | |
| 6)⊠ | Claim(s) <u>39-44</u> is/are rejected. | | | | | |
| 7) | Claim(s) is/are objected to. | | | | | |
| 8)[| Claim(s) are subject to restriction and/or | r election requirement. | | | | |
| Applicati | ion Papers | | | | | |
| 9) | The specification is objected to by the Examine | r. | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | | |
| | Applicant may not request that any objection to the | drawing(s) be held in abeyance. See | e 37 CFR 1.85(a). | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | |
| 11) | The oath or declaration is objected to by the Ex | aminer. Note the attached Office | Action or form PTO-152. | | | |
| Priority (| under 35 U.S.C. § 119 | | , | | | |
| _ | Acknowledgment is made of a claim for foreign ☐ All b) ☐ Some * c) ☐ None of: | priority under 35 U.S.C. § 119(a) |)-(d) or (f). | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| | see the attached detailed Office action for a list of | or the certified copies not receive | ea. | | | |
| Attachmen | t(s) | <u>_</u> : | | | | |
| | e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) | 4) 🔲 Interview Summary Paper No(s)/Mail Da | | | | |
| 3) Inform | nation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date | 5) Notice of Informal P 6) Other: | | | | |

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1. The specification is objected to under 35 USC 112, 1st paragraph in that in page 3, [0009], it states that the invention is based on the surprising discovery that interactions between the alloying elements and/or additive elements exist that are not only relevant to the mechanical properties but also to the castability of the melt. These are new and different interactions that are independent of the known interactions taken into account up to now. The interactions of the alloying elements and/or additive elements influencing the castability are taken into account in the alloy calculations as supplementary conditions. Further, in pages 7-8, [0032] and page 8, [0034], it states that the mathematical models used in the alloy equation 1 take into account these interactions. However, it is not clear what kind of mathematic models and equation 1 are referred to. Also, it is not clear how those new and different interactions are obtained and how those interactions are used in the mathematic models and equation 1.

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- 2. The following is a quotation of the first paragraph of 35 U.S.C. 112:
 - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 3. Claims 39-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The reasons for the rejection is same as the objection to the specification supra.

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4. Applicant's arguments filed May 30, 2007 have been fully considered but they are not persuasive.

In page 5, 2nd paragraph of the response applicant stated that mathematic models that represent such graphical displays are well known in the art.

However, it appears to be that the known mathematic model used is related to the mechanical properties (see [0004] and [0009]). Thus, the known prior art mathematic models do not related to the castability of the alloy.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuang Y. Lin whose telephone number is 571-272-1179. The examiner can normally be reached on Monday-Friday, 10:00-6:30,

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kuang Y. Lin Primary Examiner Art Unit 1725